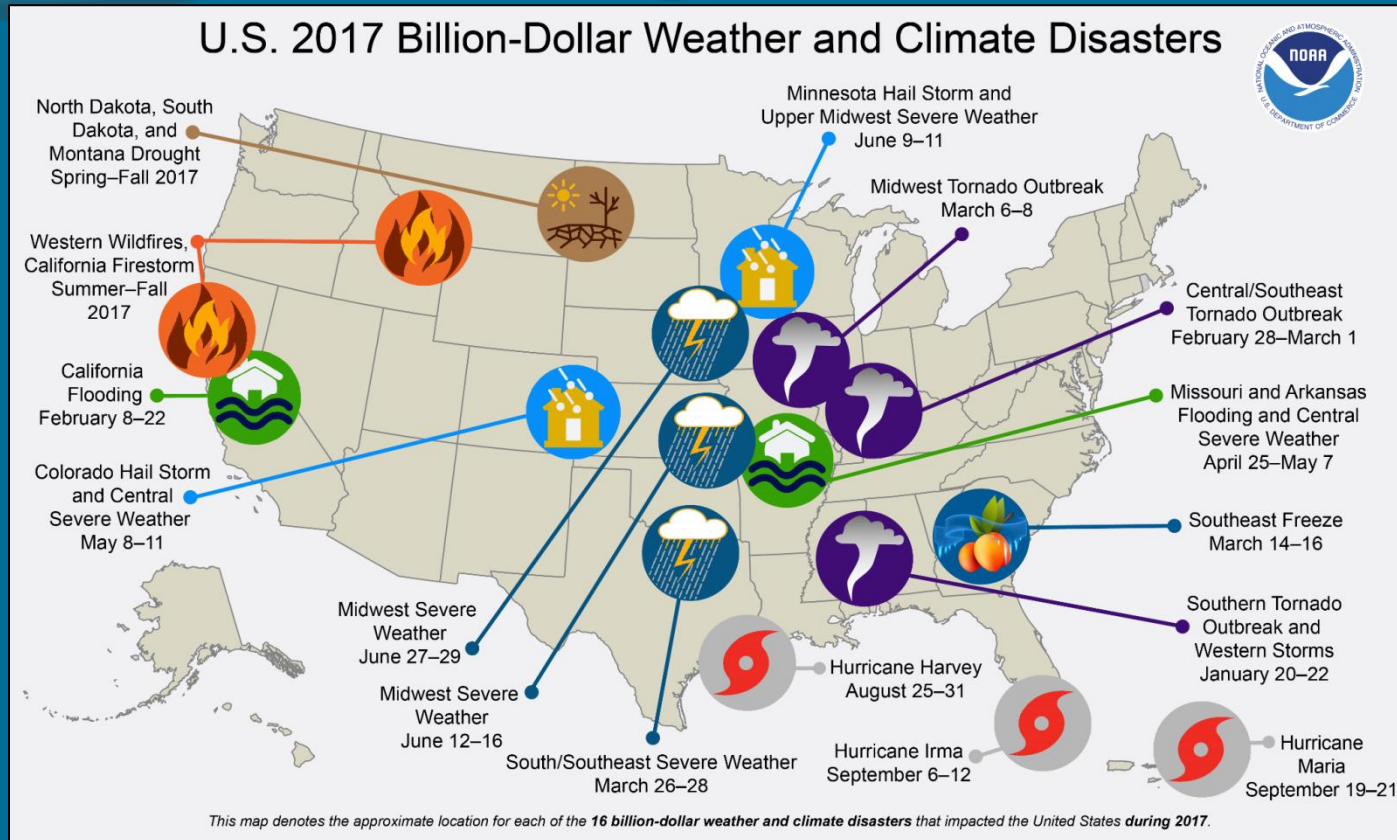


# Billion Dollar Disasters Database: Drought and Wildfire Focus



North American Drought Monitor Meeting

Calgary, Canada May 2018

Doug Kluck (doug.kluck@noaa.gov)

National Oceanic and Atmospheric Administration (NOAA)

National Centers for Environmental Information (NCEI)

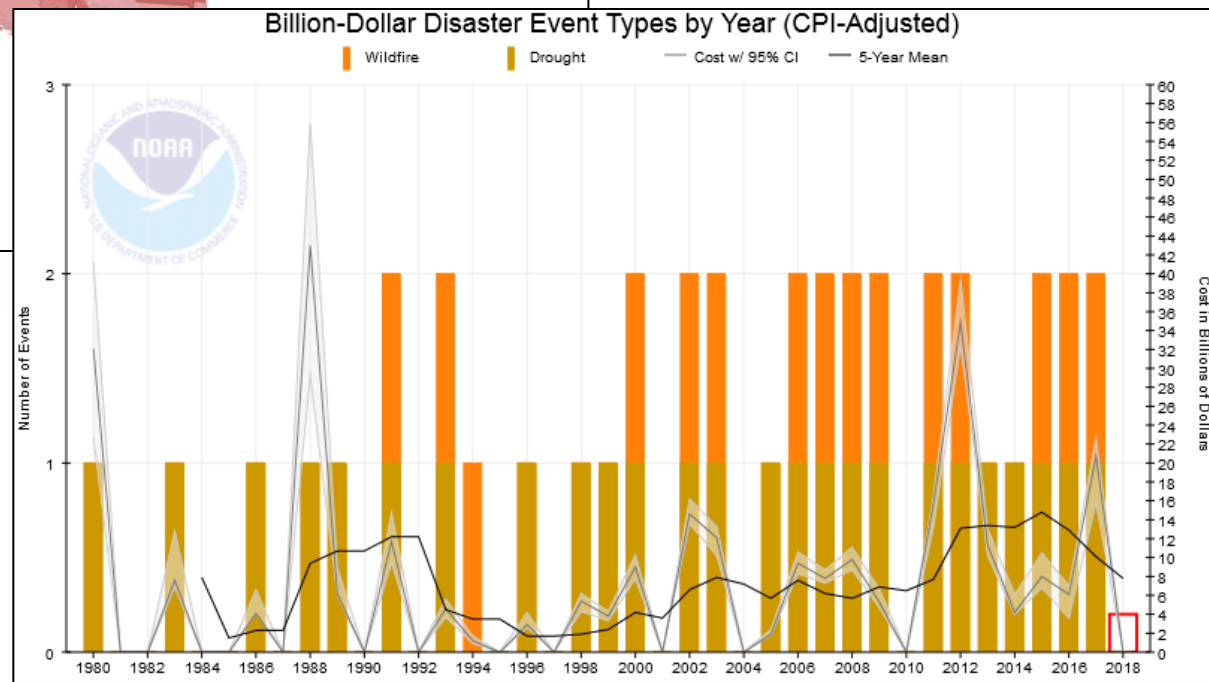
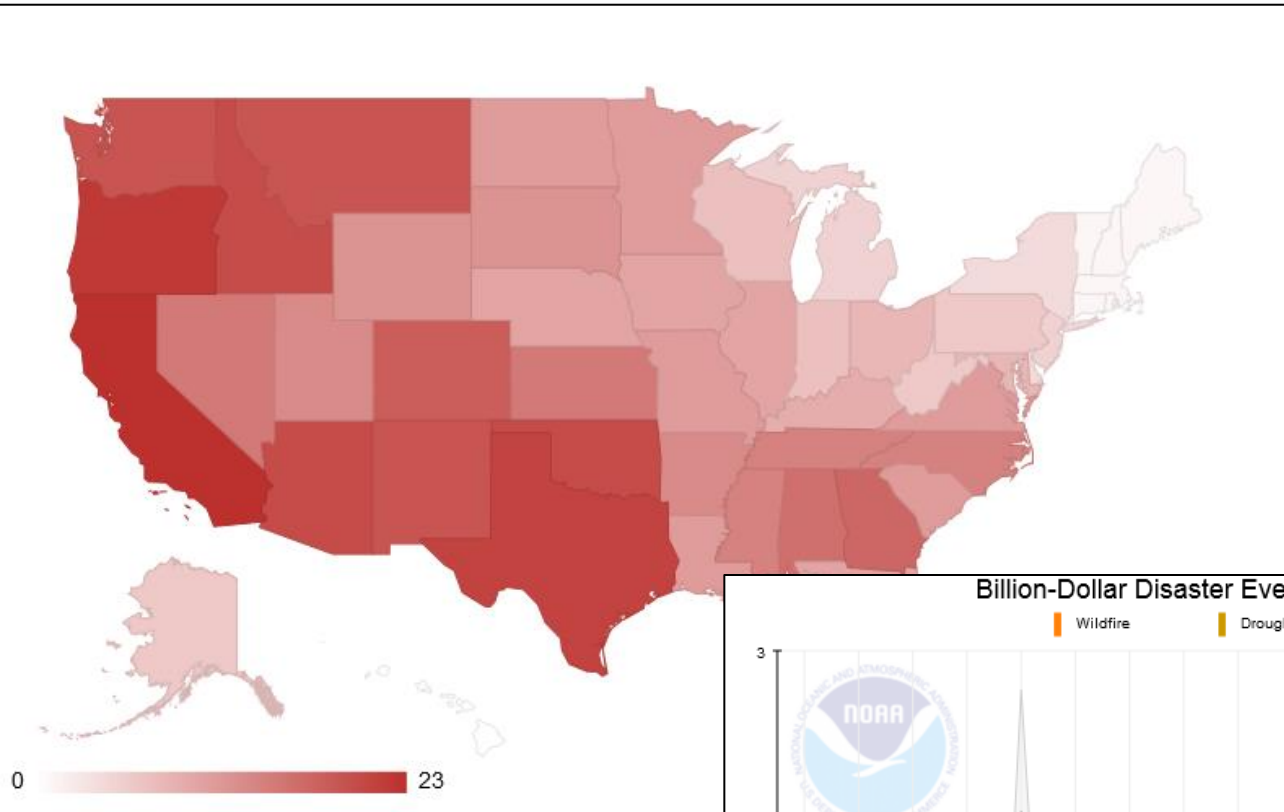
## NOAA's National Centers for Environmental Information (NCEI) – Center for Weather and Climate

- Statutory mission to describe the climate of the United States and act as the **"Nation's Scorekeeper"** regarding the trends and anomalies of weather and climate.



- As part of this responsibility we also analyze extreme weather and climate events in the U.S. that have **great economic and societal impacts** known as **“U.S. Billion-dollar Weather & Climate Disasters”**
- Such extreme events contribute the majority (>75%) of the damage from all recorded U.S. weather and climate events** (NCEI; Munich Re).

# Billion-Dollar Fire and Drought Disasters (since 1980)





# Real Time Climate Support

## USING CLIMATE INFO TO MAKE DECISIONS TODAY

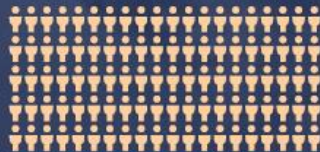
IN THE MIDWEST, MISSOURI RIVER & GREAT LAKES BASINS

**“ If I didn't receive these, I would not be up-to-date on climate/weather information.**

— Fish & Wildlife Agency (MN)

**“ I view the information as more operationally useful than other sources.**

— State Transportation Agency (IA)



More than 1,000 individuals receive quarterly climate summaries or outlooks.



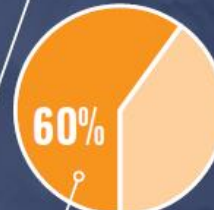
More than 435 individuals took part in one or more webinars in 2016.

1 icon = 10

More than 3/4 of users get information they can't find anywhere else.



Sixty percent say that information led to better decisions.



ON THESE TOPICS:

- State drought declarations
- Fish production scheduling
- Emergency response planning
- Reservoir operations planning
- Wildland fire personnel planning
- Construction project management
- Insurance and marketing decisions
- Flooding and drought alert communication
- Crop planting & livestock stock rate decisions

One-third of users make decisions with the information.



More than 50 percent share the information with colleagues & partners.



More than 40 percent share information with other decision makers.



Nearly half of users said the information has influenced policy and response activities.

HOW THE INFORMATION FLOWS

ains  
outlook

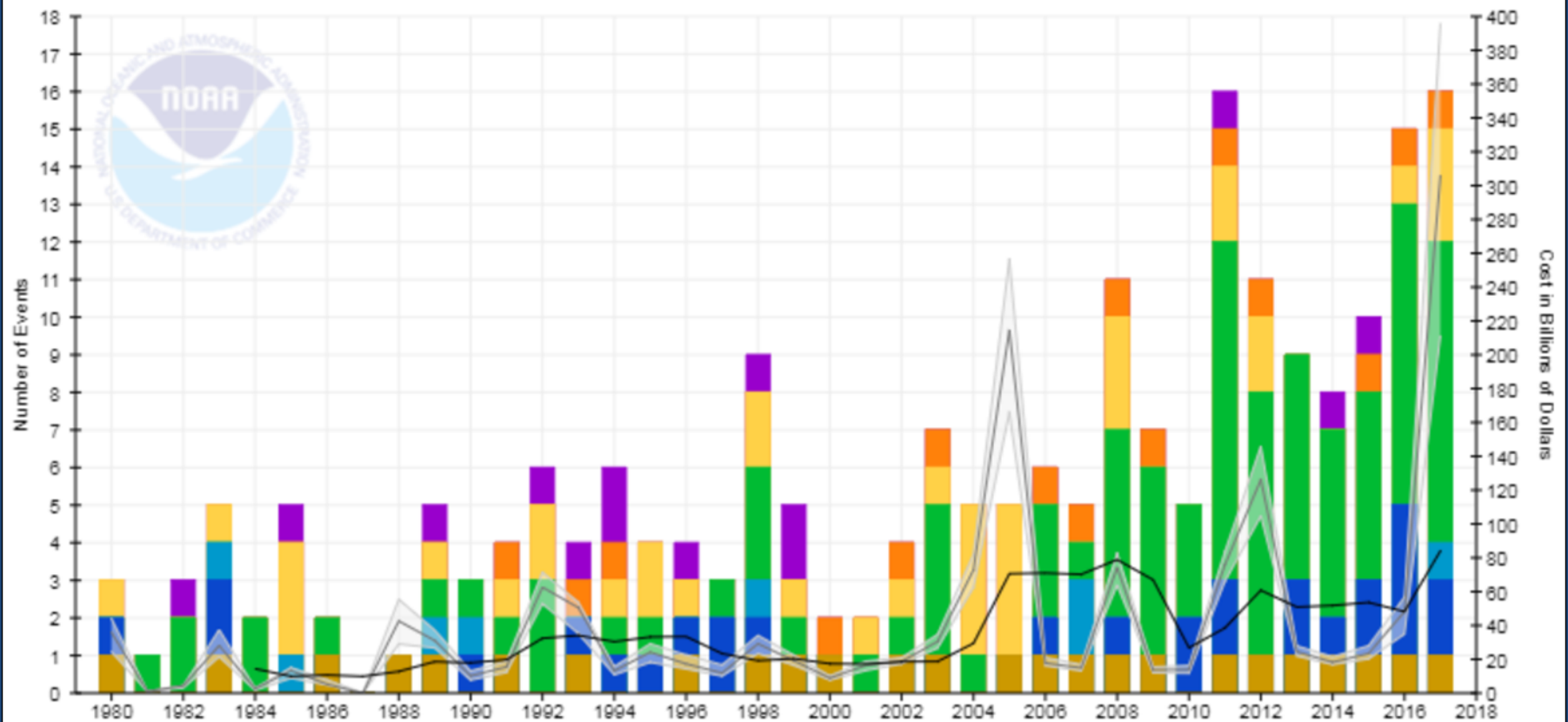
son  
ist/ Senior RA  
Extension/BPCRC  
Office of Ohio (SCOO)  
University  
u.edu; (614) 292-7930



# Thank you

Billion-Dollar Disaster Event Types by Year (CPI-Adjusted)

Winter Storm   Wildfire   Trop Cycl   Severe Storm   Freeze  
Flooding   Drought   Cost w/ 95% CI   5-Year Mean



Extra slide(s)

# Extreme Events: Partnership w/USDA

- “real time” regional briefs:
  - 2-4 weeks
  - Critical impacts, potential extremes
  - NOAA climate/weather information
  - USDA climate/weather impacts to agriculture
- Extremes due to antecedent extremes
  - Warmth/wet/dry/cold
- Critical Timing:
  - Fall harvest, fall/summer early freezes, spring late freezes
  - pollination/seed filling
  - spring livestock
  - spring fire
  - growing season drought, spring planting

